What is claimed is:

1. An oxygen sensor analyzer for use in testing the performance of an oxygen sensor comprising a portion of a vehicle emission system having an on-board computer, said oxygen sensor analyzer comprising:

a housing having a keypad, said keypad having a plurality of keys and indicator lights disposed thereon; and

a plurality of modes of operation, comprising:

a closed loop oxygen sensor monitor mode, for showing, in real time, the dynamic operation of the oxygen sensor being tested;

a simulated oxygen sensor mode, for simulating oxygen sensor signals to the vehicle computer, while monitoring the oxygen sensor for its reaction to the simulation; and

a oxygen sensor test mode, for performing an oxygen sensor test which forces the engine to run lean without the need for injecting propane thereinto.

2. A portable oxygen sensor analyzer for use in testing the performance of an oxygen sensor comprising a portion of a vehicle emission system having an on-board computer, said oxygen sensor analyzer comprising:

a housing having a keypad, said keypad having a plurality of keys and indicator lights disposed thereon; and

means for evaluating said oxygen sensor's performance relative to pre-established acceptable standards;

wherein said portable oxygen sensor analyzer is connectable in series with said oxygen sensor and said on-board computer, such that said analyzer may be operated while connected within a passenger compartment of said vehicle.

3. A method for testing the performance of an oxygen sensor comprising a portion of a vehicle emission system having an on-board computer, said method comprising:

connecting a portable oxygen sensor analyzer in series with said oxygen sensor and said on-board computer, said oxygen sensor analyzer comprising a plurality of keys and indicator lights disposed thereon, and circuitry permitting the testing of said oxygen sensor in a plurality of different operating modes, said circuitry including a comparator for driving a plurality of display lights arranged in sequence to show the relative fuel/air mixture being detected in the engine in real time during a test procedure;

activating said oxygen sensor analyzer to operate in one of said operating modes to evaluate said oxygen sensor; and

evaluating the performance of said oxygen sensor by referencing the status of the indicator lights on said analyzer.